

**REMARKS**

Applicants respectfully request the Examiner to reconsider the present application in view of the foregoing amendments to the claims.

With the above amendments, claim 2 has been canceled and claim 1 has been amended. Thus, claims 1 and 4-19 are pending in the present application. No new matter has been added by way of the above amendment because the amendment to claim 1 is supported by originally-filed claim 3 and at page 8, lines 2-6 and by the Examples in the present specification.

Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

**Issues Under 35 U.S.C. § 103(a)**

Claims 1-2 and 11-17 stand rejected under 35 U.S.C. § 103(a) as obvious over EP 1020501 A2 ("EP 501"). Applicants respectfully traverse.

The Office Action states that Applicants have not perfected priority for the present application, thus the <sup>EP</sup>~~Wang 1035~~ reference can be applied (page 2 of the Office Action). However, Applicants submit herewith certified English translations of Japanese

Application No. 2000-002435, which has a priority date of January 11, 2000, and Japanese Application No. 2000-130346, which has a priority date of April 28, 2000. The present application properly claims priority to these Japanese documents. Thus, ~~the~~ EP '501 reference is not available as prior art. Thus, Applicants respectfully submit that this rejection is overcome, and request the Examiner to withdraw this rejection.

**Issues Under 35 U.S.C. §§ 102(a or e) and 103(a)**

Claims 1, 2, 4, 5 and 11-17 are rejected under 35 U.S.C. § 102(a or e) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Wang et al. (US 2002/0077035; hereinafter "Wang '035"). Also, claims 6-10 and 18-19 are rejected under 35 U.S.C. § 103(a) as obvious over Wang '035. Applicants respectfully traverse.

Distinctions over Wang '035

Applicants respectfully refer the Examiner to claim 1, which encompasses the subject matter of claim 3. Although the Office Action refers to the disclosure in the entire Wang '035 reference, Applicants respectfully submit that Wang '035 does not disclose any compound that overlaps in scope with the present invention. For example, claim 1 of the present application does not recite -NH<sub>2</sub>, >NH, or >N as the functional group that traps a metal ion. Thus, the

rejection under § 102(a or e) is overcome because the Wang '035 reference fails to disclose all instantly claimed features. See, e.g., *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81 (Fed. Cir. 1986) ("for prior art to anticipate under § 102 it has to meet every element of the claimed invention"), *cert. denied*, 480 U.S. 947, 107 S. Ct. 1606 (1987).

In addition, Applicants respectfully submit that Wang '035 fails to disclose any functional group that traps a metal ion, or any effect of the claimed functional groups on polishing speed of metals as described by the present specification. Thus, Applicants respectfully submit that a *prima facie* case of obviousness has not been formed with regard to the Wang '035 reference.

U.S. case law squarely holds that a proper obviousness inquiry requires consideration of three factors: (1) the prior art reference (or references when combined) must teach or suggest all the claim limitations; (2) whether or not the prior art would have taught, motivated, or suggested to those of ordinary skill in the art that they should make the claimed invention (or practice the invention in case of a claimed method or process); and (3) whether the prior art establishes that in making the claimed invention (or practicing the invention in case of a claimed method or process), there would have been a reasonable expectation of success. See *In re Vaeck*, 947 F.2d, 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991); see also *In re*

Kotzab, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000); *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988).

Here, not even the initial requirement of disclosure of all claimed features has been satisfied. For example, the Wang '035 reference fails to disclose the functional groups as instantly claimed.

Further, the requisite motivation and reasonable expectation of success is lacking since one having ordinary skill in the art, upon reading Wang '035, would not achieve the present invention since the features of the present invention are not even described, nor is there any guidance in Wang '035 to achieve the formulations as presently claimed. Thus, Applicants respectfully submit that all of the cited rejections are overcome.

#### Evidence of Unexpected Results

The polymer particle of the instant invention has a functional group capable of trapping metal ion as claimed in the present invention that is much more effective for suppressing etching rates. Such results are unexpected over the Wang '035 reference. As proof of the unexpected results of the present invention, Applicants respectfully refer the Examiner to the previously submitted 37 C.F.R. § 1.132 Declaration that shows such superior properties. In particular, the Examiner's attention is drawn to the differences between Experimental 1 and 2 on page 2 of the declaration. Thus,

Applicants respectfully request consideration of the unexpected results of the present invention, which rebut any asserted *prima facie* case of obviousness.

Conclusion

In view of foregoing remarks, it should be apparent to one of ordinary skill in the art that the present invention is not anticipated by nor can it be rendered obvious by any of the cited references.

A full and complete response has been made to the Office Action. The Examiner is respectfully requested to pass the application to issue.

If any questions remain regarding the above matters, please contact Applicant's representative, Eugene Perez (Reg. No. 48,501), in the Washington metropolitan area at the phone number listed below.

Pursuant to 37 C.F.R. § 1.17 and 1.136(a), Applicants respectfully petition a three (3) month extension of time for filing a response in connection with the present application. The required fee of \$930.00 is attached hereto.

**Attached hereto is a marked-up version of the changes made to the application by this Amendment.**

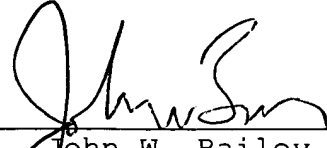
If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version with Markings to Show Changes Made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

**IN THE CLAIMS:**

Claim 2 has been canceled.

The claims have been amended as follows:

1. (Twice Amended) An abrasive for metal comprising a polymer particle having a functional group that traps a metal ion, wherein the functional group that traps a metal ion is at least one selected from the group consisting of -OH, -COOM,  $>C=O$ , -O-, -COOR, -CONH<sub>2</sub>, -NO, -NO<sub>2</sub>,  $\rightarrow N-O$ , -SO<sub>3</sub>M, -PHO(OM), -PO(OM)<sub>2</sub>, -AsO(OM)<sub>2</sub>, [-NH<sub>2</sub>,  $>NH$ ,  $\rightarrow N$ ,] -N=N-,  $>C=N-$ ,  $>C=N-OH$ ,  $>C=NH$ , -SCN, -SH, -S-,  $>C=S$ , -COSM, -CSSM, -CSNH<sub>2</sub>, -NCS,  $>P-$ ,  $>As-$ , -SeH, [ $>C=Se$ , and  $\nearrow CseSeM$ ,]  $>S=Se$ , -CSeSeM, amino alcohol, aminophosphonic acid and iminodiacetic acid, wherein M represents a hydrogen, an alkali metal, an alkaline earth metal or an ammonium group and R represents a hydrocarbon.